CLAIMS

1.   A mobile communication apparatus (120, 200) comprising a receiver (203), a derotator (206, 300, 400), a demodulator (208) and a processor (212), wherein said receiver (203) is connected to said derotator (206, 300, 400), said derotator (206, 300, 400) is connected to said demodulator (208), and said controller (212) is

5   connected to said receiver (203), derotator (206, 300, 400) and demodulator (208), wherein said derotator (206, 300, 400) comprises

        a first means (402, 500) for processing Primary Common Control Physical Channel during Space Time coding based Transmit Diversity transmission mode;

        a second means (406, 600) for processing pilot symbols;

10   a third means (408, 700) for processing symbols during closed loop transmission modes; and

        a fourth means (410, 800, 900) for outputting symbols to said demodulator in a temporal ordered sequence,

        wherein said first, second, third and fourth means (402, 500, 406, 600, 408,

15   700, 410, 800, 900) are connected in series.

2.   A Mobile communication apparatus (120, 200) according to claim 1, wherein said first means (402, 500) is transparent to symbols other than symbols related to Primary Common Control Physical Channel during Space Time coding

20   based Transmit Diversity transmission mode.

3.   A Mobile communication apparatus (120, 200) according to claim 1 or 2, wherein said first means (402, 500) is arranged to delete a first symbol related to Primary Common Control Physical Channel of every slot during Space Time coding

25   based Transmit Diversity transmission mode.

4.   A Mobile communication apparatus (120, 200) according to any of claim 1-3, wherein said second means (406, 600) is transparent to other symbols than pilot symbols.

5.   A Mobile communication apparatus (120, 200) according to any of claim 1-4, wherein said third means (408, 700) is transparent during other transmission modes than closed loop transmission modes.

6.   A Mobile communication apparatus according to any one of claims 1-5, wherein said derotator comprises a plurality of two-position switches (504, 510, 608, 612, 616, 702, 704, 706, 708, 710, 712, 716, 802, 804, 806, 808, 810, 812, 814, 816, 902, 904, 908, 910, 912, 914, 918).

7.   A method for derotation of received symbols in a mobile communication apparatus, the method comprising the steps of:
        processing Primary Common Control Physical Channel (1002) during Space Time coding based Transmit Diversity transmission mode;
        processing pilot symbols (1004);
        processing symbols (1006) during closed loop transmission modes; and
        outputting symbols (1008) in a temporal ordered sequence.

8.   A Method according to claim 7, wherein said step of processing Primary Common Control Physical Channel (1002) during Space Time coding based Transmit Diversity transmission mode comprises deleting a first symbol (1104) related to Primary Common Control Physical Channel of every slot during Space Time coding based Transmit Diversity transmission mode.

9.   A Method according to claim 7 or 8, wherein said step of processing pilot symbols (1004) comprises processing a compressed mode by the steps of:
        summing two pilot symbols; and
        dividing the sum of said two pilot symbols by two.

10.   A Method according to any of claim 7-9, wherein said step of outputting symbols (1008) comprises dividing the symbols by two when transmit diversity is present.